# Mathematics Grade 4

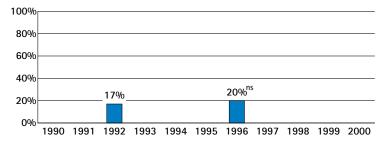
### 1. Improvement Over Time

Have New York's 4th graders improved in mathematics achievement?

Not yet. Between 1992 and 1996, there was no significant change in the percentage of public school 4th graders who met the Goals Panel's performance standard in mathematics.

The Goals Panel has set its performance standard at the two highest levels of achievement — Proficient or Advanced — on the National Assessment of Educational Progress, or NAEP.

Percentage of public school 4th graders at or above Proficient on the NAEP mathematics assessment



ns Interpret with caution. Change was not statistically significant. Mathematics performance will be tested again in 2000.

### 2. State Comparisons<sup>+</sup>

How did New York compare with other states in 4th grade mathematics achievement in public schools in 1996?

## 4 states had significantly higher percentages of students who were at or above Proficient on NAEP:

Connecticut	31%	Maine, Wisconsin	27%
Minnesota	29%		

## 24 states had similar percentages of students who were at or above Proficient on NAEP:

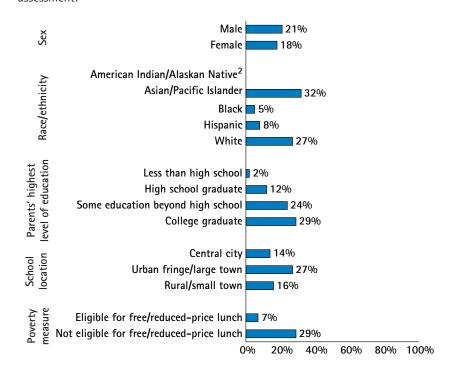
New Jersey, Texas	25%	U.S.,* Alaska, North Carolina, Oregon,	21%
Indiana, Massachusetts, Nebraska,	24%	Washington	
North Dakota		New York, Missouri, Pennsylvania	20%
Michigan, Utah, Vermont	23%	Virginia, West Virginia, Wyoming	19%
Colorado, Iowa, Maryland, Montana	22%	Rhode Island, Tennessee	17%

## 16 states had significantly lower percentages of students who were at or above Proficient on NAEP:

Delaware, Hawaii, Kentucky	16%	Alabama, California	11%
Arizona, Florida	15%	Louisiana, Mississippi	8%
Nevada	14%	District of Columbia	5%
Arkansas, Georgia, New Mexico	13%	Guam	3%
South Carolina	12%		

### 3. Subgroup Performance

What percentages of public school 4th graders in different subgroups in New York were at or above Proficient on the 1996 NAEP mathematics assessment?



The term "state" is used to refer to the 50 states, the District of Columbia, and the territories.

<sup>&</sup>lt;sup>1</sup> See explanation on pp. 3-4.

<sup>\*</sup> Figure shown for the U.S. includes both public and nonpublic school data.

<sup>&</sup>lt;sup>1</sup> Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.

<sup>&</sup>lt;sup>2</sup> Characteristics of the sample do not permit a reliable estimate.

### 1. Improvement Over Time

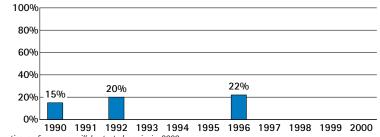


Have New York's 8th graders improved in mathematics achievement?

Yes. The percentage of New York's public school 8th graders who met the Goals Panel's performance standard in mathematics increased from 15% in 1990, to 22% in 1996.

The Goals Panel has set its performance standard at the two highest levels of achievement — Proficient or Advanced — on the National Assessment of Educational Progress, or NAEP.

Percentage of public school 8th graders at or above Proficient on the NAEP mathematics assessment



Mathematics performance will be tested again in 2000.

### 2. State Comparisons<sup>+</sup>

How did New York compare with other states in 8th grade mathematics achievement in public schools in 1996?

## 11 states had significantly higher' percentages of students who were at or above Proficient on NAEP:

Minnesota	34%	Connecticut, Iowa, Maine, Nebraska	31%
North Dakota	33%	Alaska	30%
Montana, Wisconsin	32%	Massachusetts, Michigan	28%

## 15 states had similar' percentages of students who were at or above Proficient on NAEP:

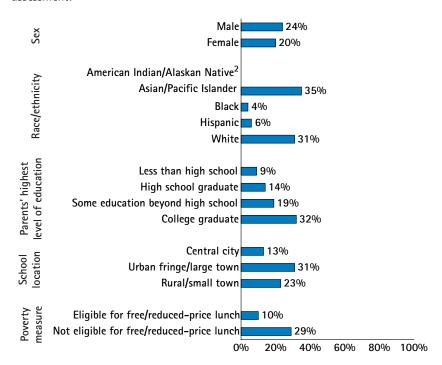
Vermont	27%	Texas, Virginia	21%
Oregon, Washington	26%	North Carolina, Rhode Island	20%
Colorado	25%	Delaware	19%
U.S.,* Indiana, Maryland, Utah	24%	Arizona	18%
New York, Missouri, Wyoming	22%		

## 15 states had significantly lower percentages of students who were at or above Proficient on NAEP:

California, Florida	17%	Arkansas	13%
Georgia, Hawaii, Kentucky	16%	Alabama	12%
Tennessee	15%	Louisiana, Mississippi	7%
New Mexico, South Carolina,	14%	Guam	6%
West Virginia		District of Columbia	5%

### 3. Subgroup Performance

What percentages of public school 8th graders in different subgroups in New York were at or above Proficient on the 1996 NAEP mathematics assessment?



<sup>†</sup> The term "state" is used to refer to the 50 states, the District of Columbia, and the territories.

<sup>&</sup>lt;sup>1</sup> See explanation on pp. 3-4.

<sup>\*</sup> Figure shown for the U.S. includes both public and nonpublic school data.

<sup>1</sup> Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.

<sup>&</sup>lt;sup>2</sup> Characteristics of the sample do not permit a reliable estimate.

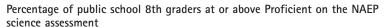
# Science Grade 8

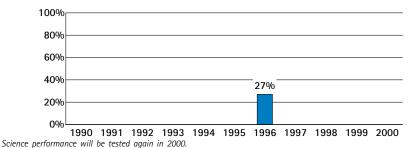
### 1. Improvement Over Time

Have New York's 8th graders improved in science achievement?

In 1996, 27% of New York's public school 8th graders met the Goals Panel's performance standard in science. The Goals Panel will report whether science performance has improved over time when science is assessed again in 2000.

The Goals Panel has set its performance standard at the two highest levels of achievement — Proficient or Advanced — on the National Assessment of Educational Progress, or NAEP.





### 2. State Comparisons<sup>+</sup>

How did New York compare with other states in 8th grade science achievement in public schools in 1996?

# 12 states had significantly higher percentages of students who were at or above Proficient on NAEP:

Maine, Montana, North Dakota	41%	Nebraska	35%
Wisconsin	39%	Vermont, Wyoming	34%
Massachusetts, Minnesota	37%	Utah²	32%
Connecticut, Iowa	36%		

# 15 states had similar percentages of students who were at or above Proficient on NAEP:

Colorado, <sup>2</sup> Michigan, <sup>2</sup> Oregon <sup>2</sup>	32%	Rhode Island	26%
Alaska	31%	Maryland	25%
Indiana	30%	North Carolina	24%
U.S.*	<b>29</b> %	Arizona, Kentucky, Texas	23%
Missouri	28%	Tennessee <sup>2</sup>	22%
New York, Virginia, Washington	<b>27</b> %		

## 14 states had significantly lower' percentages of students who were at or above Proficient on NAEP:

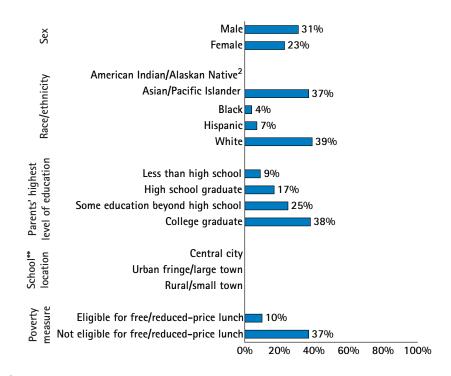
Arkansas <sup>2</sup>	22%	South Carolina	17%
Delaware, Florida, Georgia,	21%	Hawaii	15%
West Virginia		Louisiana	13%
California	20%	Mississippi	12%
New Mexico	19%	Guam	7%
Alabama	18%	District of Columbia	5%

- <sup>+</sup> The term "state" is used to refer to the 50 states, the District of Columbia, and the territories.
- <sup>1</sup> See explanation on pp. 3-4.
- <sup>2</sup> State may appear to be out of place; however, statistically, its placement is correct. See pp. 3-4.

\* Figure shown for the U.S. includes both public and nonpublic school data

### 3. Subgroup Performance

What percentages of public school 8th graders in different subgroups in New York were at or above Proficient on the 1996 NAEP science assessment?



<sup>1</sup> Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.

\*\* No school location data for science in 1996.

<sup>&</sup>lt;sup>2</sup> Characteristics of the sample do not permit a reliable estimate.

# International Comparisons

## **New York**

#### **Mathematics Grade 8**

Forty-one nations<sup>†</sup> participated in the Third International Mathematics and Science Study (TIMSS) in 8th grade mathematics in 1995. If public school 8th graders in New York participated in the TIMSS mathematics assessment, how would their average performance compare to that of students who took TIMSS in these nations?

#### 19 nations would be expected to perform significantly higher:

(Australia) Ireland
(Austria) Japan
Belgium – Flemish² Korea

(Relative Franch)² (Nethods)

(Belgium - French)²(Netherlands)(Bulgaria)Russian FederationCanadaSingaporeCzech RepublicSlovak RepublicFrance(Slovenia)Hong Kong(Switzerland)

Hungary

#### 17 nations\* would be expected to perform similarly:

Cyprus New York (Denmark) New Zealand (England) Norway (Germany) (Romania) (Greece) (Scotland) Iceland Spain (Israel) Sweden (Latvia - LSS)3 (Thailand) (Lithuania) **United States** 

#### 5 nations would be expected to perform significantly lower:1

(Colombia) Portugal Iran, Islamic Republic (South Africa)

(Kuwait)

- † The term "nation" is used to refer to nations, states, or jurisdictions. Performance for nations is based on public school data only. Nations not meeting international guidelines are shown in parentheses.
- 1 See explanation on pp. 3-4.
- 2 The Flemish and French educational systems in Belgium participated separately.
- 3 Latvia is designated LSS because only Latvian-speaking schools were tested, which represent less than 65% of the population.

#### Science Grade 8

Forty-one nations<sup>†</sup> participated in the Third International Mathematics and Science Study (TIMSS) in 8th grade science in 1995. If public school 8th graders in New York participated in the TIMSS science assessment, how would their average performance compare to that of students who took TIMSS in these nations?

#### 10 nations would be expected to perform significantly higher:

(Austria)Japan(Bulgaria)KoreaCzech Republic(Netherlands)(England)SingaporeHungary(Slovenia)

#### 17 nations+ would be expected to perform similarly:1

(Australia) Norway Belgium - Flemish<sup>2</sup> Russian Federation Canada (Scotland) Slovak Republic (Germany) Hong Kong Spain Sweden Ireland (Israel) (Switzerland) **New York** (Thailand) New Zealand **United States** 

#### 14 nations would be expected to perform significantly lower:

(Belgium - French)²(Kuwait)(Colombia)(Latvia - LSS)³Cyprus(Lithuania)(Denmark)PortugalFrance(Romania)(Greece)(South Africa)Iceland

Iran, Islamic Republic

- † The term "nation" is used to refer to nations, states, or jurisdictions. Performance for nations is based on public school data only. Nations not meeting international quidelines are shown in parentheses.
- 1 See explanation on pp. 3-4.
- 2 The Flemish and French educational systems in Belgium participated separately.
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